

WHAT IS CLAIMED IS:

1. A pressure sensor comprising:

a sensor IC having a pressure sensor element covered with mold resin, the mold resin being provided with a pressure introduction hole extending outward from the pressure sensor element so as to open to an outer surface thereof;

a board on which the sensor IC is mounted;

a case in which the sensor IC and the board are accommodated, the case being provided with a pressure introduction inlet penetrating a wall thereof; and

an interposed member having a communication hole, the interposed member being disposed between an inner wall of the case and the outer surface of the mold resin so as to allow the pressure introduction inlet to communicate with the pressure introduction hole without air leakage.

2. The pressure sensor according to claim 1, wherein the interposed member is a sealing resin with which an interior of the case is filled except the communication hole so as to encompass the sensor IC and the board.

3. The pressure sensor according to claim 1, wherein the interposed member is a resilient member whose interior is provided with a through-hole constituting the communication hole and which is resiliently deformed so as to contact air tightly with the inner wall of the case and the outer surface of the mold resin.

4. The pressure sensor according to claim 1, wherein the pressure sensor is mounted on an intake system module provided in an interior thereof with an intake air passage through which an intake air is supplied to the engine and in an outer wall thereof with a pressure introduction outlet which communicates with intake pressure in the intake air passage, and, further, wherein the pressure sensor is fixed to the outer wall of the intake system module in a state that the pressure introduction outlet is opposed to and communicates with the pressure introduction inlet without air leakage.

5. The pressure sensor according to claim 4, wherein the pressure sensor is incorporated in ECU for controlling the engine as an integrated body, ECU including:

engine control devices in addition to the sensor IC, which are necessary for controlling the engine, mounted on the board in the case at positions where communication with the pressure introduction inlet is blocked by the interposed member.